REMARKS

Claims 1 and 3-27 are all the claims pending in the application. Claim 2 has been canceled without prejudice or disclaimer. New claims 26 and 27 have been added by this Amendment.

Claim Rejections - 35 U.S.C. § 103

Claims 1-5, 9, 10, 13, 14, 16, and 20-25 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,622,682 to Kumakura in view of U.S. Publication No. 2004/0150840 to Farrell *et al.* ("Farrell"). Claims 12, 15, and 17-19 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kumakura and Farrell in view of U.S. Publication No. 2003/0016378 to Ozawa *et al.* ("Ozawa")[1]. Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kumakura and Farrell, and further in view of U.S. Publication No. 2002/0140963 to Otsuka. Claims 8 and 11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kumakura and Farrell, and further in view of U.S. Patent No. 6,999,113 to Omura.

For *at least* the following reasons, Applicants respectfully traverse the rejection.

In order to expedite prosecution, Applicants amend claim 1 by this Amendment. Applicants submit that amended claim 1 is patentable over the alleged combination of Kumakura and Farrell. For example, claim 1 relates to a print system having a printer controlling device and a printer. The printer performs printing on the basis of <u>print data including a plurality of</u>

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[1] The statement of rejection on page 6 lists claim 2 but claim 2 has been addressed under the rejection based on Kumakura and Farrell on page 2 of the Office Action.

<u>data segments</u> inputted from said printer controlling device. The print system comprises, *inter alia*, first communication means for conducting <u>high-speed</u> radio data-communication between said printer controlling device and said printer, and second communication means for conducting <u>low-speed</u> radio data-communication between said printer controlling device and said printer. A <u>predetermined data segment</u> is transferred from said printer controlling device to said printer by using said first communication means. <u>Another data segment</u> is transferred from said printer controlling device to said printer by using said second communication means. The printer performs a print job based on <u>the predetermined data segment **and** the other data segment</u>. **Only** the first communication means is **<u>automatically turned off</u>** when the data communication of the predetermined data segment is not conducted.

It is alleged in the Office Action that the high speed modems 13, 23 in FIG. 1 of Kumakura correspond to the claimed first communication means, and the low speed modems 12, 22 correspond to the claimed second communication means. It is acknowledged in the Office Action that Kumakura does not disclose that the printer performs a print job based on the predetermined data segment and the other data segment as set forth in claim 1. Paragraphs [0018] and [0031] of Farrell are cited as allegedly teaching this feature. Further, it is alleged that since Kumakura's block data generator 14 adds a start flag, <u>a stop flag</u>, a control bit, and a CRC code to each formed block to be transmitted, Kumakura discloses turning off the claimed first communication means when the data communication of the predetermined data segment is not conducted as claimed (emphasis in Office Action, page 3, last paragraph). Applicants respectfully disagree.

For instance, if the receiver 2 detects the stop flag included in the block data, there is no

disclosure or suggestion in Kumakura that the high speed MODEMS 13, 23 are turned off. The

stop flag only indicates the end of data for a subject block being transmitted, so the receiver 2 is

informed of the end of the data in the subject block. In fact, since Kumakura discloses that the

data to be transmitted is divided into a number of blocks, the high speed MODEMS 13, 23 would

remain powered on to receive subsequent blocks of the data. Therefore, merely having a stop

flag included in the incoming block data does not result in the high-speed MODEMS 13, 23

being turned off as the Examiner alleges. Accordingly, Applicants respectfully submit that

Kumakura alone, or in combination with Farrell, does not teach that said first communication

means is **turned off** when the data communication of the predetermined data segment is not

conducted as required by claim 1.

Moreover, claim 1 has been amended to recite that first communication means is

automatically turned off when the data communication of the predetermined data segment is not

conducted. Applicants respectfully submit that none of the cited references teach or suggest this

feature. For example, since stopping the power supply in S1317 in Ozawa's FIG. 28 is executed

after the user presses the power switch in S1316, the power is not turned off automatically in

Ozawa as recited in claim 1 (also see Office Action, page 6, paragraph 5).

Moreover, Ozawa generally discloses that the power is turned off when the job is

completed, rather than turning off the power when the data communication is not conducted as

claimed. Specifically, because the last operation of "END" in FIG. 27 is directly after the

aforementioned operation S1317 shown in FIG. 28 of Ozawa, Ozawa does not disclose or even

remotely suggest <u>automatically turning off</u> the first communication means <u>when the data</u>

<u>communication</u> of the predetermined data segment <u>is not conducted,</u> as set forth in claim 1.

In addition, Applicants respectfully submit that the claim distinguishes from Ozawa

alone, or in combination with Kumakura and Farrell since the claimed invention turns off the

high-speed communication means even when the print job is not completed but the high-speed

communication is finished (also see new claim 27, e.g.).

Further, in FIG. 28 of Ozawa, after transmitting the print data to the printer S1313, the

other data (e.g., date information, camera name) is transmitted in the steps S1314 and S1315 in

Ozawa. This is in distinction from claim 1 where the high-speed communication means is

automatically turned off when finishing the image data transmission. In Ozawa, the same

communication link is used to transmit the print data and the other data.

Moreover, neither Kumakura nor Farrell disclose or suggest performing a print job based

on data segments transferred over different communication means as required by claim 1 (i.e.,

via high-speed radio communication and low-speed radio communication). Kumakura is

directed to a transmission method employing an Automatic Repeat-Query (ARQ) function. With

reference to FIG. 1, Kumakura disclose that the transmitter 1 includes a transmission controller

11 which carries out the overall transmission control of transmitter 1, a low speed MODEM 12

for use with <u>various control signals</u> and a high speed MODEM 13 for use with image data to be

transmitted. Similarly, the receiver 2 includes a reception controller 21, a low speed MODEM 22

and a high speed MODEM 23 (Kumakura, col. 2, lines 35-47). The Examiner contends that

these various control signals transmitted via the low speed MODEMS 12, 22 correspond to the "other data segment" of claim 1.

However, claim 1 recites that the other data segment in claim 1 is also used by the printer to perform the print job (in addition to the predetermined data segment). The various control signals of Kumakura are not used by the receiver 2 to render the image data. Instead, the various control signals are delay measurement signals for measuring a time delay of the transmission route L between the transmitter 1 and the receiver 2. Kumakura explicitly discloses that in its disclosed transmission system, "the transmission time delay is first measured and the number of bits of a block of data to be transmitted is determined depending upon the measured time delay" (col. 4, lines 62-68, also see col. 4, lines 21-29). As such, Kumakura's receiver 2 does not use these various control signals to perform any print job.

Additionally, Kumakura discloses that the transmitter 1 further includes a block data generator 14 connected to the transmission controller 11 and high speed MODEM 13. The block data generator 14 receives compressed image data line by line and stores the data temporarily, and, then, divides the data into blocks each having a predetermined number of bits set by the transmission controller 11. Then a start flag, a stop flag, a control bit and a CRC code are added to each of the block data thus formed and the block data added with additional information are supplied to the high speed MODEM 13. This additional information corresponds closest to the claimed other data segment since this the receiver 2 prints the image data based on the received image data and this additional information. This additional information included in the block

data, however, is sent via the high speed MODEM 13 along with the image data to print the image.

Farrell also does not cure these deficient teachings of Kumakura. Farrell is directed to structuring a raster image data file. The structuring includes accessing image data containing set-up information (Farrell, paragraph [0020]) and image data (Farrell, paragraph [0036]), determining a structure of the image data, and sequencing contents of the image data file such that different parts of the set-up information are grouped together. The structuring further includes segmenting the image data and constructing an output image data file (see FIGS. 1-3). The set-up information may be sequenced to precede the image data. According to Farrell, this technique allows for the segmented image data to be distributed to more than one processor so it can be sequentially processed and reproduced, resulting in shortened printing time (Farrell, Abstract).

The Examiner contends that Farrell's set-up information corresponds to the claimed other data segment. Farrell, however, also fails to teach or suggest transmitting its image data and this setup information from the raster image file structuring apparatus 400 (alleged printer controlling device) to the image data sink 490 (alleged printer) via different communication means as required by claim 1. Rather, Farrell discloses that the output image file (which includes the image data and the setup information) constructed by the raster image file structuring apparatus 400 is transmitted via the communication link 491 to the image data sink 490 (Farrell, paragraph [0031]). Although various embodiments of this communication link 491 are discussed in paragraph [0035], there is no teaching in Farrell that two different communication means exist

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between the apparatus 400 and the image data sink 490, let alone splitting the image data and the

setup information included in the output image file to transmit them via such different

communication means (e.g., Farrell, paragraphs [0045]-[0047]).

Therefore, the combined teachings of Kumakura and Farrell do not teach or suggest

performing a print job based on a predetermined data segment transferred over high-speed radio

communication means and another data segment transferred over low-speed radio

communication means as set forth in claim 1. For *at least* this reason, Applicants respectfully

submit that claim 1 is patentable over Kumakura and Farrell.

Also, claim 1 has been amended to recite that **only** the first communication means is

turned off when the data communication of the predetermined data segment is not conducted.

Applicants respectfully submit that Kumakura alone, or in combination with Farrell, does not

teach or suggest this feature.

In addition, Applicants respectfully submit that the Examiner is impermissibly relying on

hindsight in an effort to render claim 1 unpatentable. Absent Applicants' own disclosure, there

is no reason a skilled artisan would combine the teachings of Kumakura and Farrell as proposed

by the Examiner. For instance, the Examiner contends that a skilled artisan would draw from

Farrell's disclosure "to make processing of a raster image data file more efficient by segmenting

the raster image data file" (Office Action, page 3, second paragraph). As pointed out earlier

however, even though Farrell may teach segmenting an image data file, the setup information for

aiding with the printing is included in the output image file, and the output image file is

transmitted to the image data sink 490 via a single communication link 491. Therefore, the

Examiner's given reasoning is irrelevant to the claim limitation at issue which requires

transmission of a predetermined data segment and another data segment, both of which are used

for performing a print job, via different communication means.

MPEP § 2141.III states that "[t]he key to supporting any rejection under 35 U.S.C. 103 is

the clear articulation of the reason(s) why the claimed invention would have been obvious. The

Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should

be made explicit. The Court quoting *In re Kahn,* 441 F.3d 977, 988, 78 USPQ2d 1329, 1336

(Fed. Cir. 2006), stated that '[R]ejections on obviousness cannot be sustained by mere conclusory

statements; instead, there must be some articulated reasoning with some rational underpinning to

support the legal conclusion of obviousness'".

Here, there is no adequate rationale provided in the Office Action that supports the

Examiner's position that the combination of Kumakura and Farrell is obvious. The motivation to

send the predetermined data segment and the other data segment via different communication

means is only found in Applicants' own disclosure.

Moreover, MPEP 2145.X.A citing *In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ

209, 212 (CCPA 1971) states that "[a]ny judgment on obviousness is in a sense necessarily a

reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge

which was within the level of ordinary skill in the art at the time the claimed invention was made

and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction

is proper" (emphasis added). Since the Examiner has not provided an adequate basis for

combining the teachings of Kumakura and Farrell, a *prima facie* case of obviousness has not

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been established. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §

103(a) rejection.

Claims 9 and 13 recite features similar to those discussed above with respect to claim 1.

Therefore, Applicants submit that claims 9 and 13 are patentable for *at least* reasons similar to

those given above with respect to claim 1. Moreover, as noted in the 'Incomplete Office Action

– Premature Finality' section in the previous Amendment filed August 13, 2008, the Examiner

does not address the feature of claims 9 and 13 reciting that **only** said first communication means

is turned off when reception (or transmission as set forth in claim 13) of said image data is not

conducted (previous Amendment, page 9).

In response, in the Advisory Action dated September 4, 2008, the Examiner contends that

"he made a typo mistake" when rejecting claims 9 and 13 (Advisory Action, page 2). Further,

the Examiner incorrectly asserts that the noted features of claims 9 and 13 "are the same as

limitations in claim 2 which has been rejected using the Kumakura reference in view of the

Farrell reference (see pages 3-4 of the final rejection)". Applicants respectfully disagree.

For instance, Applicants point out that the limitations at issue of claims 9 and 13 provide

different scope than the feature of previously pending claim 2 (now incorporated in claim 1)

noted by the Examiner. Specifically, claims 9 and 13 recite that <u>only</u> said first communication

means is turned off when reception (or transmission as set forth in claim 13) of said image data is

not conducted, whereas the feature of previously pending claim 2 recited that the "first

communication means is turned off when the data communication of the predetermined data

segment is not conducted" (see Amendment filed April 1, 2008). That is, previously pending

claim 2 did not recite the term "only" (in this Amendment, in addition to incorporating claim 2 into claim 1, claim 1 has been further amended to recite the term "only" as discussed above). As such, the Examiner's assertion that the feature of previously pending claim 2 is equivalent to the features of claims 9 and 13 at issue is incorrect. Moreover, as submitted above with respect to claim 1, the alleged combination of Kumakura and Farrell does not disclose or suggest that **only** said first communication means is turned off when reception (or transmission as set forth in claim 13) of said image data is not conducted. Therefore, claims 9 and 13 are patentable for *at least* these additional reasons.

As noted above, claim 2 is canceled. Therefore, the rejection thereto is rendered moot.

Claims 3-5, 10, 14, 16, and 20-25 are patentable *at least* by virtue of their dependency on the independent claims.

Claims 12, 15, and 17-19 depend from independent claims 1, 9, or 13. Since Ozawa does not cure the deficient teachings of Kumakura and Farrell with respect to claims 1, 9, or 13, Applicants respectfully submit that claims 12, 15, and 17-19 are patentable *at least* by virtue of their dependency.

Claims 6 and 7 depend from claim 1. Since Otsuka does not cure the deficient teachings of Kumakura and Farrell with respect to claim 1, Applicants respectfully submit that claims 6-7 are patentable *at least* by virtue of their dependency.

Claims 8 and 11 depend from claims 1 and 9, respectively. Since Omura does not cure the deficient teachings of Kumakura and Farrell with respect to claims 1 and 9, Applicants respectfully submit that claims 8 and 11 are patentable *at least* by virtue of their dependency.

New claims

New claims 26 and 27 are patentable *at least* by virtue of their dependency. Further, the prior art of record does not teach or suggest that the predetermined data segment and the other data segment are <u>included in the print data</u> based on which the printer performs the print job as set forth in claim 26. Moreover, the prior art of record does not teach or suggest that said first communication means is automatically turned off after said predetermined data segment is transferred from said printer controlling device to said printer, and said first communication means remains turned off while the other data segment is being transferred from said printer controlling device to said printer using said second communication means as set forth in claim 27.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

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Respectfully submitted,

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